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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,480	09/17/2001	Andrew Goldsbrough	11951.0005.PCUS00;	8719

7590 02/10/2003

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EXAMINER

FOX, DAVID T

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 02/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/786,480

Applicant(s)

Goldsbrough et al

Examiner

FOX

Group Art Unit

FOX

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -1- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 6/25/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-25 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☒ Claim(s) 1-25 are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_ ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

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Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-12, 14-21 and 23, drawn to nucleotides encoding starch branching enzymes and methods for their use to transform plants for altered starch production, and the resultant transformed plants.

Group II, claim(s) 13, drawn to isolated amino acid sequences.

Group III, claim(s) 22, drawn to isolated starch.

Group IV, claim(s) 24-25, drawn to a method of using starch to produce foodstuffs.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The inventions are linked by the technical feature of isolated nucleotide sequences which are functional equivalents of wheat nucleotide sequences encoding starch branching enzyme II, class 1, and their use to transform plants for the production of altered starch. However, this feature does constitute an advance over the prior art, and thus does not constitute a special technical feature. As admitted by Applicants on page 6 of the specification, bottom paragraph and page 21 of the specification, these wheat nucleotides are strongly homologous with the maize

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nucleotides taught by WO 97/22703 encoding starch branching enzyme IIb, and thus encode “functional equivalents” thereof. The prior art also teaches plant transformation with these nucleotides to alter starch content in the transformed plants.

Inventions I-III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions and different modes of operation. The invention of Group I, drawn to a first product and method of its use, involves a multitude of isolated nucleotide sequences and variants thereof, methods for plant transformation and regeneration, and whole transformed plants, each not required by any other group. The invention of Group II, a second product, requires isolated proteins and variants thereof not required by any other group. The invention of Group III, a third product, requires isolated starch not required by any other group. The invention of Group IV, a method of using the third product, requires food processing reagents and processes not required by any other group.

Applicants are reminded that nucleotide sequences encoding different proteins are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute **independent and distinct** inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq.

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Upon election of a Group above, Applicant is additionally required to select a single nucleotide sequence and corresponding amino acid sequence for said Group. This requirement is not to be construed as a requirement for an election of species, since each nucleotide and amino acid sequence is not a member of single genus of invention, but constitutes an independent and patentably distinct invention.

Thus, if Applicants elect Group I, they will be required to elect either a nucleotide sequence encoding SEQ ID NO:2 (claim 1), a nucleotide sequence comprising SEQ ID NO:3 (claims 2 and 8), a nucleotide sequence comprising SEQ ID NO:4 (claims 3 and 8), a nucleotide sequence comprising SEQ ID NO:5 (claims 4 and 8), a nucleotide sequence comprising SEQ ID NO:6 (claim 5), or a nucleotide sequence comprising SEQ ID NO:7 (claim 6). If Applicants elect Group II, they will be required to elect either SEQ ID NO:2 or one of the proteins encoded by the nucleotide sequences of each of claims 2-6.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter and fields of search, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David T. Fox whose telephone number is (703) 308-0280. The examiner can normally be reached on Monday through Friday from 10:30AM to 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached on (703) 306-3218. The fax phone number for this Group is (703) 872-9306. The after final fax phone number is (703) 872-9307.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

February 5, 2003

DAVID T. FOX  
PRIMARY EXAMINER  
GROUP 1638

A handwritten signature in black ink, appearing to read "David T. Fox", with a stylized flourish at the end.